

*Abstract of the Disclosure*

An apparatus and associated method for controlling the propagation constant of a region of focusing propagation constant in an optical waveguide. The method comprising positioning an electrode of a prescribed electrode shape proximate the waveguide. A region of focusing propagation constant is projected into the waveguides that corresponds, in shape, to the prescribed electrode shape by applying a voltage to the shaped electrode. The propagation constant of the region of focusing propagation constant is controlled by varying the voltage. Light of certain wavelengths passing through the region of focusing propagation constant has a variable focal length.